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10/552,460	10/07/2005	Alberto Sardo	2005-1561A	2270
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EXAMINER				
GWARTNEY, ELIZABETH A				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/552,460

**Applicant(s)**

SARDO, ALBERTO

**Examiner**

Elizabeth Gwartney

**Art Unit**

1794

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 39-71 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 39-71 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

**DETAILED ACTION**

1. The Amendment filed 12/04/2008 has been entered. Claims 1-38 have been cancelled and claims 39-71 have been added. Claims 39-71 are pending.
2. The previous claim objections, 112 1<sup>st</sup> Paragraph, and 2<sup>nd</sup> Paragraph rejections have been withdrawn in light of applicant's amendments made 12/04/2008.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:  

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 39-46, 56-57 and 67-71 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 39, the recitation "wherein: the physical treatment is carried out by means of heat or cold; the chemical treatment is conducted with an agent selected from foliar fertilizers . . . having antioxidant and/or fungicidal functions" renders the claim indefinite because there is not a physical or chemical treatment step recited as part of the method. Does applicant mean that the method comprises applying lecithin and/or derivatives thereof and a physical and/or chemical treatment to a fruit or vegetable?

Regarding claim 44, the recitation "the treatment" renders the claim indefinite because there is not a treatment as part of the recited steps of claim 39.

Regarding claims 56-57, the recitation "wherein a ratio of lecithins and/or derivatives relative to the treatment agent is from 0.2 to 3 {0.5 to 1.5}" renders the claims indefinite. It is

not clear if applicant means that the ratio of lecithin to treatment agent is 0.3:3 or a range of ratios including 1:3 to 3:1 [ 0.5:1.5 or 1:2 to 1.5:1].

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 39, 42-43, 46 and 65 are rejected under 35 U.S.C. 102(b) as being anticipated by Garcia-Mina et al. (EP 1 106 070 A2).

Regarding claims 39 and 46, Garcia-Mina et al. disclose a method for controlling post-harvest pathology of fruits and vegetables (i.e. affliction of pathogenic agents and processes of chemical degeneration of the skin) comprising applying a composition containing an active ingredient selected from eugenol, terpineol, and geraniol and a surface active including lecithin (Abstract, [0001], [0016], and [[0019]).

Regarding claim 42, Garcia-Mina et al. disclose all of the claim limitations as set forth above. Since Garcia-Mina et al. disclose lecithin ([0019]), the limitations of this claim have been met.

Regarding claim 43, Garcia-Mina et al. disclose all of the claim limitations as set forth above and that the treatment agents and lecithin are formulated to be administered simultaneously ([0019]).

Regarding claim 65, Garcia-Mina et al. disclose a method for treating fruits and vegetables comprising bathing the fruits and vegetables at a temperature of 45° to 50°C in a composition comprising lecithin ([0019], [0032]).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 40-41 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garcia-Mina et al. (EP 1 106 070 A2).

Regarding claims 40-41, Garcia-Mina et al. disclose all of the claim limitations as set forth above. Garcia-Mina et al. does not disclose that the lecithins contain 30% to 60% lysolecithins. A skilled artisan would know that the hydrolyzed form of lecithin, lysolecithin, has superior emulsification properties to lecithin. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have replaced a portion, including between 30% and 60% of all of the lecithin, in the composition of Garcia-Mina et al. with lysolecithin for the purpose of making a more stable emulsion with the treatment agent ingredient.

Regarding claim 45, Garcia-Mina et al. disclose all of the claim limitations as set forth above. Garcia-Mina et al. also disclose that the composition dose is between 1 and 10000 ppm ([0019]/L13). Garcia-Mina et al. disclose a composition comprising about 30% surface active compound (see preparation of 1 kg. product – [0031]) that is known under the tradename Tween 80. While there is no explicit disclosure regarding the amount of lecithin, given that Garcia-Mina disclose the equivalence and interchangeability of using lecithin with using Tween 80 ([0019]), it would have been obvious to one of ordinary skill in the art to also use lecithin in amount of between 0.33 and 3300 ppm.

11. Claims 47-64 and 66-71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garcia-Mina et al. (EP 1 106 070 A2) in view of Schur (US 6,514,551).

Regarding claim 47 and 52, Garcia-Mina et al. disclose a composition containing one or more treatment agents for fruits and vegetables and lecithin (Abstract, [0019]). Garcia-Mina et al. does not disclose that the composition is dissolved in oil.

Schur teaches a composition for impacting the surface of microbially perishable products comprising a microbicidally active substance and lecithin diluted in vegetable oil (C2/53-54, C6/L3-6, C9/L24-30,46-53).

Garcia-Mina et al. and Schur are combinable because they are concerned with the same field of endeavor, namely, stabilization of microbially perishable products. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have used vegetable oil, as taught by Schur, to dilute the composition of Garcia-Mina et al. because doing so would amount to nothing more than the use of a known food grade dilutant for its intended use in a known environment to accomplish entirely expected results.

Regarding claim 48, modified Garcia-Mina et al. disclose all of the claim limitations as set forth above. Garcia-Mina et al. also disclose that the treatment agents and lecithin are formulated in order to be administered simultaneously ([0019]).

Regarding claims 49-51, modified Garcia-Mina et al. disclose all of the claim limitations as set forth above. Garcia-Mina et al. also disclose that the treatment agents are selected from eugenol, terpineol and geraniol (Abstract, [0019]). Garcia-Mina et al. disclose that the treatment agents have fungicidal functions (i.e. control attack of funguses - [0002]). Given that Garcia-Mina et al. disclose applying a composition containing treatments agents identical to those presently claimed, it is clear that the treatment agents would be intrinsically acceptable in foodstuffs.

Regarding claims 53-54, modified Garcia-Mina et al. disclose all of the claim limitations as set forth above. Garcia-Mina et al. also disclose a composition that comprises 15% eugenol, 20% surface-active complex (i.e. lecithin - [0019]), and 25% water ([0035]) but does not disclose that the composition comprises between 10% and 70% or 30% and 60% of vegetable oil base. As fluidity and ease of application are variables that can be modified, among others, by adjusting the amount of vegetable oil base, the precise amount of vegetable oil base would have been considered a result effective variable by one of ordinary skill in the art at the time of the invention. . As such, without showing unexpected results, the claimed amount of vegetable oil cannot be considered critical. Accordingly, one of ordinary skill in the art at the time the invention was made would have optimized, by routine experimentation, the amount of vegetable oil in the composition of modified Garcia-Mina et al. to obtain the desired fluidity and application efficiency (*In re Boesch*, 617 F.2d. 272, 205 USPQ 215 (CCPA 1980)), since it has been held that where the general conditions of the claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. (*In re Aller*, 105 USPQ 223).

Regarding claims 55 and 58, modified Garcia-Mina et al. disclose all of the claim limitations as set forth above. Garcia-Mina et al. does not disclose that the lecithin contains between 5% and 15% lysolecithin. A skilled artisan would know that the hydrolyzed form of lecithin, lysolecithin, has superior emulsification properties to lecithin. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have replaced a portion, including 5% to 15% or all of the lecithin, in the composition of modified Garcia-Mina



et al. with lysolecithin for the purpose of making a more stable emulsion with the treatment agent ingredient.

Regarding claims 56-57, modified Garcia-Mina et al. disclose all of the claim limitations as set forth above. Garcia-Mina et al. also disclose that the ratio of lecithin to the treatment agent is about 1.3 (*see* 20% surface active complex (i.e. lecithin-[0019]) to 15% eugenol – [0035]).

Regarding claim 59, modified Garcia-Mina et al. disclose all of the claim limitations as set forth above. Garcia-Mina et al. also disclose applying the composition to fruits and vegetables (Abstract, [0032]).

Regarding claim 60, modified Garcia-Mina et al. disclose all of the claim limitations as set forth above. Garcia-Mina et al. also disclose that the composition is diluted in water to a dose between 1 and 10000 ppm ([0019], [0032]).

Regarding claim 61, modified Garcia-Mina et al. disclose all of the claim limitations as set forth above. Garcia-Mina et al. also disclose that the composition is diluted in water and applied at a temperature of from 45° to 50°C ([0032]).

Regarding claims 62-63, modified Garcia-Mina et al. disclose all of the claim limitations as set forth above. Garcia-Mina et al. also disclose that the composition is applied by mean of showering or immersion ([0019]/L11-12). Garcia-Mina et al. also disclose use of the composition post-harvest ([0016]/L37).

Regarding claim 64, modified Garcia-Mina et al. disclose all of the claim limitations as set forth above. Garcia-Mina et al. does not disclose that the application of the composition is carried out before harvesting the fruit or vegetable. Given that the composition is used to control post-harvest pathologies, it would have been obvious to a skilled artisan to have applied the

composition to the fruit or vegetable at any time prior to distribution and achieve the same benefits.

Regarding claim 66, modified Garcia-Mina et al. disclose all of the claim limitations as set forth above. While Schur teaches mixing lecithin and a microbicidally active substance (i.e. eugenol) in a vegetable oil base, the reference does not explicitly teach adding lecithin to the vegetable oil base followed by addition of the active substance. To switch the order of performing process steps, i.e. the order of the addition of the ingredients into the final composition, would be obvious absent any clear and convincing evidence and/or arguments to the contrary (MPEP 2144.04[R-1]). "Selection of any order of performing process steps is *prima facie* obvious in the absence of new or unexpected results."

Regarding claim 67, Garcia-Mina et al. disclose all of the claim limitations as set forth above. Garcia-Mina does not disclose that the lecithin and treatment agents are mixed in an oil base.

Schur teaches a composition for impacting the surface of microbially perishable products comprising a microbicidally active substance and lecithin diluted (i.e. mixed) in vegetable oil (C2/53-54, C6/L3-6, C9/L24-30,46-53).

Garcia-Mina et al. and Schur are combinable because they are concerned with the same field of endeavor, namely, stabilization of microbially perishable products. I would have been obvious to one of ordinary skill in the art at the time of the invention was made to have mixed the treatment agent and lecithin in Garcia-Mina et al, with vegetable oil, as taught by Schur, because doing so would amount to nothing more than the use of a known food grade dilutant for its intended use in a known environment to accomplish entirely expected results.

Regarding claim 68, modified Garcia-Mina et al. disclose all of the claim limitations as set forth above. Garcia-Mina et al. also disclose that the treatment agent has fungicidal properties ([0002]/L8).

Regarding claim 69, modified Garcia-Mina et al. disclose all of the claim limitations as set forth above. Garcia-Mina et al. also disclose that the treatment agent is eugenol (Abstract, [0019]).

Regarding claims 70-71, modified Garcia-Mina et al. disclose all of the claim limitations as set forth above. Garcia-Mina et al. also disclose that the treatment agent represents 40% by weight of the lecithin (*see* preparation of 1 kg. product where eugenol is 40% of the surface active substance – [0031]).

12. Claims 39 and 42-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mulder (US 3,451, 826) in view of Garcia-Mina et al. (EP 1 106 070 A2).

Regarding claim 39, Mulder discloses a method of coating fruits and vegetables with a composition comprising lecithin (C1/Abstract) and other substances, including fungicides and/or bactericides (C5/L1-3).

Mulder does not disclose that the chemical treatment agent is selected from foliar fertilisers based on calcium chloride, tolyfluanid, diphenylamine, orthophenylphenol, imazalil, ethoxyguine, hydroxyl-function terpenes having antioxidant and/or fungicidal functions..

Garcia-Mina et al. teach the use of eugenol to control post-harvest pathologies on fruit and vegetables (Abstract, [0021]). Garcia-Mina et al. teach that eugenol is an eco-compatible ingredient that does not have any risk for human health ([0017]).

Mulder and Garcia-Mina et al. are combinable because they are concerned with the same field of endeavor, namely, methods for preserving fruits and vegetables. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used eugenol, as taught by Garcia-Mina et al. as the treatment agent in the composition of Mulder for the purpose of using an eco-compatible ingredient that does not have any risk for human health.

The recitation that said lecithins and/or derivatives are used to reduce the phytotoxicity of the physical and/or chemical treatments does confer patentability to the claim since statements in the preamble reciting the purpose or intended use of the claimed invention which do not result in a manipulative difference between the claimed invention and the prior art do not limit the claim and do not distinguish over the prior art process. See, e.g., *In re Otto*, 312 F.2d 937, 938, 136 USPQ 458, 459 (CCPA 1963); *In re Sinex*, 309 F.2d 488, 492, 135 USPQ 302, 305 (CCPA 1962). If a prior art structure is capable of performing the intended use as recited in the preamble, then it meets the claim. See, e.g., *In re Schreiber*, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed. Cir. 1997) and cases cited therein, as it has been held that the recitation of a new intended use for an old product does not make a claim to that old product patentable. *In re Schreiber*, 44 USPQ2d 1429 (Fed. Cir. 1997). See also MPEP § 2111.02 and § 2112 - § 2112.02.

Further, given that Mulder in combination with Garcia-Mina disclose method as presently claimed, it is clear that such method would intrinsically reduce phytotoxicity of physical and/or chemical treatment as presently claimed.

Regarding claim 42, Mulder discloses all of the claim limitations as set forth above. Since Mulder discloses lecithin, the limitations of this claim have been met.

Regarding claim 43, Mulder discloses all of the claim limitations as set forth above. Given that the composition of claim 39 is used to coat fruit and vegetables (C1/L26-27), since Mulder discloses adding chemical treatments to the emulsions, the lecithin and chemical treatment are applied simultaneously.

Regarding claim 44, Mulder discloses all of the claim limitations as set forth above. Further, Mulder discloses that the lecithin is formulated in an aqueous solution, then diluted in an aqueous dispersion before treatment (C2/L32-49).

***Response to Arguments***

13. Applicant's arguments with respect to claims 1-38 have been considered but are moot in view of the new ground(s) of rejection.

14. Applicant's arguments filed 12/04/2008 have been fully considered but they are not persuasive.

Applicants argue that lecithins are only mentioned as one of many products listed as a surface active and as a result, the combination of lecithin with the chemical treatment agents presently recited in new claim 39 is not specifically disclosed by Garcia-Mina et al.

Garcia-Mina et al. disclose a composition for treating fruits and vegetables comprising active ingredients and a surface active selected from a group consisting of lecithin, ammonium phosphatides, fatty acid esters, polysorbates, sucrose esters, saccharose esters, fatty acids, polyglycerides ([0019]). Given that Garcia-Mina et al. discloses a composition comprising a active ingredient and a surface active and since Garcia-Mina et al. disclose lecithin as a surface active, it is clear that the limitations of claim 39 are disclosed by Garcia-Mina et al.

Applicants argue that while Mulder discloses a method for coating fruits and vegetables with lecithins, the reference does not suggest that lecithins could be useful to reduce phytotoxicity due to the specific physical or chemical treatments as recited in new claim 39. Applicants find that one of ordinary skill in the art would not have expected lecithins could reduce phytotoxicity due to physical and chemical treatments to such an extent, and would not have been motivated to carry out the claimed process/method.

Statements in the preamble reciting the purpose or intended use of the claimed invention which do not result in manipulative difference between the claimed invention and the prior art do not limit the claim and do not distinguish over the prior art process. See, e.g., *In re Otto*, 312 F.2d 937, 938, 136 USPQ 458, 459 (CCPA 1963); *In re Sinex*, 309 F.2d 488, 492, 135 USPQ 302, 305 (CCPA 1962). If a prior art structure is capable of performing the intended use as recited in the preamble, then it meets the claim. See, e.g., *In re Schreiber*, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed. Cir. 1997) and cases cited therein, as it has been held that the recitation of a new intended use for an old product does not make a claim to that old product patentable. *In re Schreiber*, 44 USPQ2d 1429 (Fed. Cir. 1997). See also MPEP § 2111.02 and § 2112 - § 2112.02. Given that modified Mulder et al. disclose a method identical to that presently claimed, it is clear that the method would intrinsically reduce phytotoxicity of physical and chemical treatments.

Applicants argue that the present invention and the extent of phytoprotective effect of lecithins toward heat and cold and the specifically recited treatment agents, was not predictable in view of the cited art. Specifically, applicants find that the experimental data in the instant specification show that lecithins practically eliminate the phytotoxicity due to eugenol.

With respect to the comparative data of comparative example 4 and example 5, the data is not persuasive given that Garcia-Mina already discloses the criticality of using lecithin and eugenol. Further, the data is not persuasive given that is not commensurate in scope with the scope of the present claims since there is only data for one specific chemical treatment.

***Conclusion***

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Gwartney whose telephone number is (571) 270-3874. The examiner can normally be reached on Monday - Thursday; 7:30AM - 5:00PM EST, working alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on (571) 272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/E. G./  
Examiner, Art Unit 1794

/Callie E. Shosho/  
Supervisory Patent Examiner, Art Unit 1794